

## REMARKS

Claims 37-81 are pending in the present application, and were rejected in the Office Action dated September 20, 2005. The rejection of these claims is respectfully traversed. No claims are amended, added, or canceled.

### I. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kothuri et al.* (U.S. Patent No. 6,470,344, hereinafter “*Kothuri*”) in view of *Galaand et al.* (U.S. Patent No. 5,495,479, hereinafter “*Galaand*”).

Claims 41, 56 and 71 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kothuri* in view of *Galaand*, as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78, and further in view of *Blais et al.* (U.S. Patent Application Pub. No. 2002/0178437, hereinafter “*Blais*”).

Claims 49-50, 64-65, and 79-80 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kothuri* in view of *Galaand*, as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78, and further in view of *Hsing et al.* (U.S. Patent Application Publication No. 2002/0023113, hereinafter “*Hsing*”).

Claims 51, 66 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kothuri* in view of *Galaand*, as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78, and further in view of *Geil* (U.S. Patent No. 3,662,400).

Applicants respectfully traverse these rejections.

The cited references, alone or in combination, fail to teach or suggest all of the limitations of claim 37. For example, the cited references fail to teach or suggest “creating a merged tree based on the nodes in the hierarchical trees.” The Examiner contends that Kothuri teaches creating a merged tree at col. 9, ll. 33-43 and col. 13, ll. 14-27. However, those cited portions merely mention the word “merge.” *Kothuri* does not discuss the creation of a merge tree based on hierarchical trees. The only other appearance of the word “merge” or “merging” appears at col. 19, ll. 35-37. There, *Kothuri* discloses that a node of a deleted data item may be merged with another tree. Again, no trees are created, thus this does not teach or suggest creating a merge tree based on hierarchical trees. Because the limitation is also absent in *Galaand*, the combination of *Kothuri* and *Galaand* clearly fails to teach or suggest creating a merged tree based on the nodes in the compared hierarchical trees.

The cited references also fail to teach or suggest, for example, “determining if a node is present in only one tree by comparing two or more of the hierarchical trees,” as recited in claim 37. The Examiner admits that *Kothuri* does not teach “determining if a node is present in only one tree,” and Applicants agree. Applicants respectfully submit that *Galaand* also does not teach or suggest “determining if a node is present in only one tree by comparing two or more of the hierarchical trees.” The Examiner contends that “determining if a node is present in only one tree” reads on “each node appears only once in the connectivity tree,” found at col. 12, ll. 17-18 of *Galaand*. However, there *Galaand* discusses building an acyclic graph representing the connectivity of nodes in a network (*See* col. 12, ll. 10-19 of *Galaand*). The statement “each node appears only once in the connectivity tree” is a rule for building a connectivity tree, and does not require any determination. Moreover, *Galaand* only discloses one tree, *i.e.*, the connectivity tree,

so it makes no sense to assert that *Galaand* teaches determining if a node is only present in one tree if there is only one tree.

The Examiner further contends that “by comparing two or more of the hierarchical trees” reads on the process of ensuring that “only the nodes that have not yet been taken are considered,” appearing at col. 12, ll. 29-30 of *Galaand*. Again, this contention is erroneous. Ensuring that only the nodes that have not yet been taken are considered does not require a comparison, any more than choosing a seat that has not already been taken requires a comparison. Moreover, since there is only one tree, *i.e.*, the connectivity tree, there are not two or more trees to compare. (*See* col. 12, ll. 10-19 of *Galaand*).

The Examiner further contends that “by comparing two or more of the hierarchical trees” reads on the process of ranking nodes in a tree, discussed at col. 43, lines 18-19 of *Galaand*. The “highest ranked node” refers, however, to the connectivity of each node. Determining the connectivity of a node in no way requires or suggests the comparison of two hierarchical trees.

For any and all of these reasons, the combination of *Kothuri* and *Galaand* fails to teach or suggest all of the limitations of claim 37. Accordingly, *prima facie* obviousness has not been established, and the rejection should be withdrawn. Claims 52 and 67 are patentable for at least the same reasons as given for claim 37.

Regarding claim 38, the combination fails to teach or suggest, for example, “creating a reference node to the node determined to be present in only one tree if a node is determined to be present in only one tree; and adding the reference node to the merged tree.” As previously discussed, neither *Kothuri* nor *Galaand* teaches or suggests determining if a node is only present in one tree, and thus cannot teach that part of the limitation.

*Kothuri* and *Galaand* further fail to teach or suggest adding a reference node to a merged tree. The Examiner contends that col. 18, ll. 1-53 of *Kothuri* teaches this limitation. However, the cited text says nothing of reference nodes or merged trees. The Examiner further contends that col. 19, ll. 4-43 of *Kothuri* also teaches adding a reference node to a merged tree. While that text does mention the word “merged” at col. 19, line 37, *Kothuri* says nothing of adding a reference node to a merged tree. Instead, *Kothuri* merely discusses merging the node of a deleted data item into another R\*-tree. The node of a deleted data item is not a “reference node.” Clearly, the combination of *Kothuri* and *Galaand* fails to teach or suggest all of the limitations of claim 38. Accordingly, *prima facie* obviousness has not been established and the rejection should be withdrawn. Claims 53 and 68 are patentable for at least the same reasons as given for claim 38.


The other cited references *Blais*, *Hsing*, and *Geil* also do not teach or suggest the limitations of claims 37 and 38. As a result, none of the cited references teach or suggest the limitations of claims 37 and 38. Claims 39-51 depend from claim 37, and are therefore patentable for at least the same reasons. Furthermore, claims 54-66 and 69-81 depend on claims 52 and 67 respectively and are therefore patentable at least for the same reasons.

IV. **Conclusion**

In view of the foregoing comments, Applicants respectfully submit that the present amendment places the above-referenced application in condition for allowance, and thus, a swift allowance is respectfully requested so that the application may swiftly pass to issue.

Respectfully submitted,

Dated: December 14, 2005

By:   
A. Wesley Ferree  
Registration No. 51,312

Customer Number: 26263  
SONNENSCHN NATH & ROSENTHAL LLP  
P.O. Box 061080  
Wacker Drive Station, Sears Tower  
Chicago, Illinois 60606-1080  
Phone: (202) 408-9214  
Fax: (312) 876-7457